



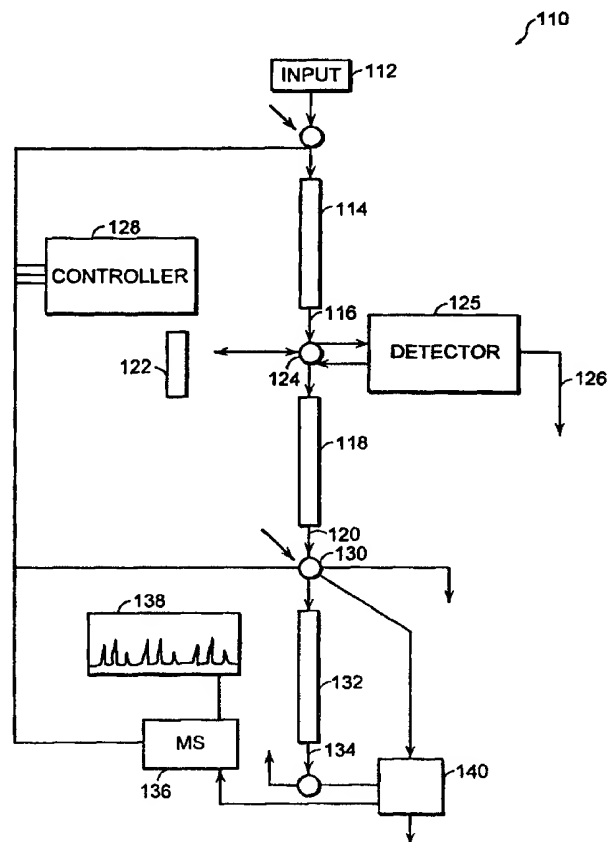
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>G01N 30/88</b>		<b>A3</b>	(11) International Publication Number: <b>WO 97/01755</b>
			(43) International Publication Date: 16 January 1997 (16.01.97)
(21) International Application Number: PCT/US96/10929		(81) Designated States: JP, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(22) International Filing Date: 26 June 1996 (26.06.96)			
(30) Priority Data: 60/000,518 26 June 1995 (26.06.95) US		<b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(71) Applicant: PERCEPTIVE BIOSYSTEMS, INC. [US/US]; 500 Old Connecticut Path, Framingham, MA 01701 (US).		(88) Date of publication of the international search report: 6 March 1997 (06.03.97)	
(72) Inventors: JINDAL, Satish; 20 Norman Street, Milton, MA 02186 (US). REGNIER, Fred, E.; 1219 Tuckahoe Lane, West Lafayette, IN 47906 (US). WILLIAMS, Kevin; 76 Beaconfield Road, Brookline, MA 02146 (US). AFEYAN, Noubar, B.; 6 Fairfield Drive, Lexington, MA 02173 (US). PALIWAL, Sandeep; Apartment 19, 1555 West Middlefield Road, Mountain View, CA 94043 (US). EVANS, David; 77 Malden Street, Natick, MA 01760 (US). PINGALI, Aruna; 1704 Windsor Ridge Drive, Westboro, MA 01581 (US).			
(74) Agent: TURANO, Thomas, A.; Testa, Hurwitz & Thibault, L.L.P., High Street Tower, 125 High Street, Boston, MA 02110 (US).			

(54) Title: HIGH SPEED, AUTOMATED, CONTINUOUS FLOW, MULTI-DIMENSIONAL MOLECULAR SELECTION AND ANALYSIS

## (57) Abstract

The invention provides novel methods for screening a sample to select a ligand to a target of interest and for obtaining information about the ligand and its binding characteristics. Specifically, the claimed multi-dimensional methods involve combining a solution of heterogeneous ligands with the target of interest to screen the ligands on the basis of one or more binding characteristics. Ligands having the first binding characteristic bind to the target of interest thereby to form a target/ligand complex. The complex then optionally is separated from the unbound components using any of a variety of separation techniques, e.g., size exclusion. At least one of the complex or unbound components then is introduced to a second "dimension". The second dimension is capable of separating components based upon a second binding characteristic. One then elutes the ligand having the desired binding characteristics.



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# INTERNATIONAL SEARCH REPORT

national Application No

PCT/US 96/10929

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 6 G01N30/88

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G01N C07K B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 94 15951 A (MATTIASSON) 21 July 1994  see page 1, line 29 - page 2, line 7 see page 17, line 11 - page 18, line 15 ---	1,14,21, 26,28, 29,31, 33,37,47
A	US 5 252 216 A (FOLENA-WASSERMANN) 12 October 1993  see column 2, line 50 - column 3, line 24 ---	1,14,21, 26,28, 29,31, 33,37,47
A	EP 0 411 503 A (TECNOGEN) 6 February 1991  see page 9, line 41-53 ---	1,14,21, 26,28, 29,31, 33,37,47
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

22 January 1997

Date of mailing of the international search report

29. 01. 97

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl,  
Fax (+ 31-70) 340-3016

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# INTERNATIONAL SEARCH REPORT

International Application No  
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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A	<p>US 5 340 474 A (KAUVAR) 23 August 1994</p> <p>see column 1, line 17-27  see column 3, line 57 - column 4, line 51  see column 7, line 1-28  see column 19, line 25 - column 23, line 30</p> <p style="text-align: center;">---</p>	<p>1,14,21,  26,28,  29,31,  33,37,47</p>
A	<p>W0 93 07168 A (PERSEPTIVE BIOSYSTEMS) 15 April 1993</p> <p>see page 35, line 24 - page 38, line 8;  figure 3</p> <p style="text-align: center;">-----</p>	<p>1,14,21,  26,28,  29,31,  33,37,47</p>

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